IN THE CLAIMS:

1. (Canceled)

2. (Canceled)

3. (Original) A method for controlling a mobile terminal's transmit power in CDMA-TDD system, comprising: (a) receiving a power control message from a base-station transmitted via a downlink; (b) acquiring a channel gain value between said mobile terminal and said base-station according to information transmitted via the downlink; (c) calculating a value of the transmit power of said mobile terminal according to said power control message, said channel gain value and a set processing gain value; and (d) adjusting the transmit power of said mobile terminal according to said value of the transmit power, wherein said adjusting the transmit power of said mobile terminal is synchronized with those of other terminals assigned within a same time slot; , wherein said power control message at least includes items of background noise, inter-cell interference power level and target signal-to-interference ratio which have changed; and

wherein step (c) further includes a step of calculating the value of the transmit power according to following formula:

$$p_i = \frac{SIR_{targeti} \cdot (I_{inter} + N_{bk})}{r_i \cdot (G + SIR_{targeti}) \cdot \left(1 - \sum_{i=1}^{n} \frac{SIR_{targeti}}{G + SIR_{targeti}}\right)}$$

Wherein:

P_i is the value of the transmit power of the mobile terminal;

$SIR_{target\ i}$ is a target signal-to-interference ratio;

I_{inter} is inter-cell interference power level;

N_{bk} is background noise;

r_i is the channel gain;

G is the processing gain;

n is the number of mobile terminals assigned within one time slot;

wherein N_{bk}, I_{inter} and $SIR_{target\ i}$ are acquired according to said power control message transmitted via the downlink.

4. (Previously Presented)The method of claim 3, wherein said items of background noises, inter-cell interference power level and target signal-to-interference ratio which have not changed are not included in said power control message and are used in a calculation of a new power value.

5. (Previously Presented) The method of claim 3, wherein when all of said mobile terminals have substantially the same SIR_{target}, the value of the transmit power is calculated according to following formula:

$$p_i = \frac{I_{inter} + N_{bk}}{r_i \left(\frac{G}{SIR_{target}} - (n-1) \right)}$$

Wherein:

P_i is the value of the transmit power of the mobile terminal;

$SIR_{target\,i}$ is a target signal-to-interference ratio;

I_{inter} is inter-cell interference power level;

N_{bk} is background noise;

r_i is the channel gain;

G is the processing gain;

n is the number of mobile terminals assigned within one time slot.

6. (Currently Amended)The method of claim ~~1~~3, wherein when said power control message changes, the mobile terminal receives said power control message broadcast via the downlink.

7. (Original)The method of claim 5, wherein when said power control message changes, the mobile terminal receives said power control message broadcasted via the downlink.

8. (Canceled)

9. (Canceled)

10. (Previously Presented) A device for controlling a mobile terminal's transmit power in CDMA-TDD system, comprising: a receiving module, receiving a power

control message from a base-station transmitted via a downlink; a channel gain calculating module, acquiring a channel gain value between said mobile terminal and said base-station according to information transmitted via the downlink; and a transmit power calculating and setting module, calculating a value of the transmit power of said mobile terminal according to said power control message, said channel gain value and a set processing gain value, and adjusting the transmit power of said mobile terminal according to said value of the calculated transmit power, wherein said adjusting the transmit power of said mobile terminal is synchronized with those of other terminals assigned within a same time slot;

wherein said power control message at least includes items of background noise, inter-cell interference power level and target signal-to-interference ratio which have changed, wherein said transmit power calculating and setting module calculates the value of the transmit power according to following formula:

$$p_i = \frac{SIR_{targeti} \cdot (I_{inter} + N_{bk})}{r_i \cdot (G + SIR_{targeti}) \cdot \left(1 - \sum_{i=1}^{n} \frac{SIR_{targeti}}{G + SIR_{targeti}}\right)}$$

Wherein:

P_i is the value of the transmit power of the mobile terminal;

$SIR_{target\,i}$ is a target signal-to-interference ratio;

I_{inter} is inter-cell interference power level;

N_{bk} is background noise;

r_i is the channel gain;

G is the processing gain;

n is the number of mobile terminals assigned within one time slot;

wherein N_{bk}, I_{inter} and $SIR_{target\ i}$ are acquired according to said power control message transmitted via the downlink.

11. (Previously Presented)The device of claim 10, wherein said items of background noises, inter-cell interference power level and target signal-to-interference ratio which have not changed are not included in said power control message and said items are used in a calculation of a new power value.

12. (Original)The device of claim 10, wherein when all of said mobile terminals have substantially same SIR_{target}, said transmit power calculating and setting module calculates the value of the transmit power according to following formula:

$$p_i = \frac{I_{inter} + N_{bk}}{r_i \left(\frac{G}{SIR_{target}} - (n-1) \right)}$$

Wherein:

P_i is the value of the transmit power of the mobile terminal;

$SIR_{target\ i}$ is a target signal-to-interference ratio;

I_{inter} is inter-cell interference power level;

N_{bk} is background noise;

r_i is the channel gain;

G is the processing gain;

n is the number of mobile terminals assigned within one time slot.

13. (Canceled)

14. (Original)The method of claim 12, wherein when said power control message changes, the mobile terminal receives said power control message broadcasted via the downlink.

15. (Cancel)

16. (Canceled)

17. (Previously Presented)A mobile terminal in CDMA-TDD system, comprising: a receiving means, receiving and processing wireless signals from a downlink; a transmitting means, transmitting wireless signals via a uplink; and a transmit power control means, receiving a power control message transmitted via the downlink, after acquiring a channel gain value between said mobile terminal and a base-station, calculating a value of the transmit power of said mobile terminal according to said power control message, said channel gain value and a set processing gain value, and adjusting the transmit power of said mobile terminal according to said value of the transmit power, wherein said adjusting the transmit power of said mobile terminal is synchronized with those of other terminals assigned within a same time slot;

wherein said power control message at least includes items of background noise, inter-cell interference power level and target signal-to-interference ratio which have changed, and

wherein said transmit power control means calculates the value of the transmit power according to following formula:

$$P_i = \frac{SIR_{targeti} \cdot (I_{inter} + N_{bk})}{r_i \cdot (G + SIR_{targeti}) \cdot \left(1 - \sum_{i=1}^{n} \frac{SIR_{targeti}}{G + SIR_{targeti}}\right)}$$

Wherein:

P_i is the value of the transmit power of the mobile terminal;

$SIR_{target\ i}$ is a target signal-to-interference ratio;

I_{inter} is inter-cell interference power level;

N_{bk} is background noise;

r_i is the channel gain;

G is the processing gain;

n is the number of mobile terminals assigned within one time slot;

wherein N_{bk}, I_{inter} and $SIR_{target\ i}$ are acquired according to said power control message transmitted via the downlink.

18. (Previously Presented)The mobile terminal of claim 17, wherein said items of background noises, inter-cell interference power level and target signal-to-interference ratio which have not changed are included in said power control message and said items are used in a calculation of a new power value.

19. (Original)The mobile terminal of claim 17, wherein when all of said mobile terminals have substantially same SIR_{target}, said transmit power control means calculates the value of the transmit power according to following formula:

$$p_i = \frac{I_{inter} + N_{bk}}{r_i \left(\frac{G}{SIR_{target\,i}} - (n-1) \right)}$$

Wherein:

P_i is the value of the transmit power of the mobile terminal;

$SIR_{target\,i}$ is a target signal-to-interference ratio;

I_{inter} is inter-cell interference power level;

N_{bk} is background noise;

r_i is the channel gain;

G is the processing gain;

n is the number of mobile terminals assigned within one time slot.

20. (Canceled)

21. (Original)The mobile terminal of claim 19, wherein when said power control message changes, the mobile terminal receives said power control message broadcasted via the downlink.

22. (Previously Presented)A method for power control in a base station, comprising: transmitting a power control message via a downlink; and transmitting

information via the downlink, wherein said information is related to a transmit power used when the base station transmits signals; and simultaneously receiving power information transmitted by each mobile terminal assigned in a same time slot;

wherein the power information received by the base station includes a transmit power calculated according to the following formula:

$$P_i = \frac{SIR_{target\,i} \cdot (I_{inter} + N_{bk})}{r_i \cdot (G + SIR_{target\,i}) \cdot \left(1 - \sum_{i=1}^{n} \frac{SIR_{target\,i}}{G + SIR_{target\,i}}\right)}$$

Wherein:

P_i is the value of the transmit power of the mobile terminal;

$SIR_{target\,i}$ is a target signal-to-interference ratio;

I_{inter} is inter-cell interference power level;

N_{bk} is background noise;

r_i is the channel gain;

G is the processing gain;

n is the number of mobile terminals assigned within one time slot;

wherein N_{bk}, I_{inter} and $SIR_{target\,i}$ are acquired according to said power control message transmitted via the downlink.

23. (Original)The method of claim 22, wherein said power control message at least includes items of background noise, inter-cell interference power level and target signal-to-interference ratio which have changed.

24. (Original) The method of claim 22, wherein when said power control message changes, the base station transmits said power control message.